DESCRIPTION

Title of Invention: REMOTE MANAGEMENT APPARATUS AND REMOTE MANAGEMENT SYSTEM

Technical Field

A remote management apparatus and a remote management system for remotely managing one or more devices

Background Art

As disclosed in PTL 1 (Japanese Unexamined Patent Application Publication No. 2004-184068), a system of the related art is known in which setting information for the operation of devices installed in customers' properties can be registered at a remote location via a network.

Summary of Invention

Technical Problem

When the initial setting of devices, which is performed when the devices are installed in customers' properties, is performed manually by a person in charge visiting each property, there is a problem in that man-hours required for the person in charge increase.

Solution to Problem

According to a first aspect, there is provided a remote management apparatus that remotely manages one or more devices. After establishing communication with a communication device to be incorporated in or connected to each of the one or more devices via a network, the remote management apparatus identifies a model of each of the one or more devices based on information received from the communication device.

In an embodiment, the remote management apparatus transmits, based on an identification result of the model of each of the one or more devices, initial setting information of each of the one or more devices to each of the one or more devices via the communication device.

In an embodiment of the remote management apparatus, the initial setting information includes at least one of identification information of the device, information concerning an installation location of the device, and information specific to an environment in which the device is to be installed.

In an embodiment, the remote management apparatus further identifies, based on information received from the communication device, a property in which the device is to

be installed.

In an embodiment, the remote management apparatus determines, based on an identification result of the property, whether to transmit initial setting information of each of the one or more devices to each of the one or more devices via the communication device.

In an embodiment of the remote management apparatus, each of the one or more devices includes at least one of an air conditioner, a ventilator, and a refrigerator.

According to a second aspect, there is provided a remote management system that remotely manages one or more devices. The remote management system includes a control terminal to be connected to the one or more devices, and a management apparatus to be connected to the control terminal via a network. After establishing communication with the control terminal, the management apparatus identifies, based on information received from the control terminal, a property in which the device is to be installed. The control terminal identifies a model of the one or more devices based on information received from the one or more devices.

In an embodiment of the remote management system, the management apparatus transmits, based on an identification result of the model of the one or more devices obtained by

the control terminal, initial setting information of the one or more devices to the control terminal or the one or more devices.

In an embodiment of the remote management system, the management apparatus determines, based on an identification result of the property, whether to transmit initial setting information of the one or more devices to the control terminal or the one or more devices.

In an embodiment of the remote management system, the initial setting information includes at least one of identification information of the device, information concerning an installation location of the device, and information specific to an environment in which the device is to be installed.

In an embodiment of the remote management system, each of the one or more devices includes at least one of an air conditioner, a ventilator, and a refrigerator.

In an embodiment of the remote management system, the management apparatus transmits operation setting information of the one or more devices to the control terminal or the one or more devices. The operation setting information includes at least one of information concerning a schedule of operating the device, information concerning permission

and prohibition of operation of the device, and a parameter related to operation of the device.

In an embodiment of the remote management system, the management apparatus presents, for each property, at least information concerning whether a person in charge needs to visit the property.

Brief Description of Drawings

[Fig. 1] Fig. 1 is a conceptual diagram of an air conditioning control system 100 according to a first embodiment.

[Fig. 2] Fig. 2 is a detailed configuration diagram of the remote management system 100 according to the first embodiment.

[Fig. 3] Fig. 3 is a flowchart of a test operation of a control terminal 30 according to the first embodiment.

[Fig. 4] Fig. 4 is a detailed configuration diagram of a remote management system 200 according to a second embodiment.

[Fig. 5] Fig. 5 is a flowchart of a test operation of a device 120 according to the second embodiment.

[Fig. 6] Fig. 6 illustrates an example of property management information displayed on a display of a